Lesson 3 Problem-Solving Practice

Multiplying Rational Numbers

1. In a school survey, Randy found that $\frac{5}{12}$ of the students normally wear sneakers, and that $\frac{8}{25}$ of those who wear sneakers normally wear white sneakers. What fraction of the student body normally wears white sneakers?

2. The Darling Downs Rabbit Board fence was built to prevent the spread of rabbits into southern Queensland, Australia. On a map drawn to a scale of 1 in. $= 70\frac{6}{7}$ m, the fence measures $8\frac{3}{4}$ inches. How long is the actual fence?

3. A farmer has a 420-acre farm. He planted $\frac{7}{12}$ of it with corn, but later found that $\frac{3}{14}$ of the crop was diseased. How many acres of healthy corn did the farmer have?

4. A $62\frac{1}{2}$ -pound bag of concrete mix has $\frac{3}{5}$ of its weight made up of sand and small stones. The stones make up $\frac{1}{4}$ of the weight. What is the weight of the stones in the bag of concrete?

5. A wall in a museum measures 3 meters high by 6 meters wide. One quarter of the wall is dedicated to displays. What is the area of the wall that is dedicated to displays?

6. Refer to the information in Exercise 5. Three paintings, each measuring $1\frac{3}{4}$ meters high by $\frac{4}{5}$ meter wide, are hung in the display space. What is the total area of the three paintings? How much of the display area is still available?